Army Configuration Management Advisory Group (CMAG) Information Briefing

Presented to
PD FCG

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Events leading to the CMAG

- Army decided it would publish an Army version of MIL-STD-2549 Rev A with a cancellation notice effective with the publication of GEIA Standard 836
- The Army would support the GEIA effort to publish 836
- DOD was proposing to cancel MIL-STD-973 and MIL-STD-2549 immediately.
- AIB voted that the Army should non-concur in the proposed DOD action to cancel MIL-STD-973.
  - DOD revised its cancellation notice for MIL-STD-2549 and MIL-STD-973 to be effective 30 Sep 2000.
- MSC representatives were invited to the GEIA quarterly meeting in Providence, RI to decide whether the AMC should form the Army CMAG - Decision was YES!

Initial CMAG Tasking

- Prepare DIDs to replace MIL-STD-973 DIDs
- Prepare an AMC version of MIL-STD-2549 Rev A
- Work with GEIA to develop 836

First CMAG Meeting, 16 May

- Reviewed the history associated with MIL-STD-2549 and related documents.
- Reviewed known major issues with 2549 Rev A
- Defined Plan of Action
  - Strategy
  - Process & Schedule
  - Expected products & Assignments
- Set a schedule
  - Meetings: 12 - 16 June (Warren, MI), 14 - 18 Aug (Huntsville, AL)
  - Draft Standard issued for review – 11 Sep
  - Conference call review – 14 Sep
  - Final publication - 30 Sept

Status of Tasks

- MIL-STD-973 DIDs
  - Replacement DIDs have been prepared and reviewed by the CMAG.
  - They are now being coordinated with the other services. Air Force is leaning toward supporting Army proposed DIDs.
- AMC-STD-2549 Rev A
  - CMAG members are working to complete drafts of their sections that will be submitted (1 Sep) for assembly into final product
- Work with GEIA on GEIA 836
  - CMAG members have been working with and are having a significant influence on the GEIA 836 effort
- Effort on schedule for Sep 00 completion

The Promise of 2549

- Would accommodate commercial business practices that are consistent with CM principles in ANSI/EIA 649.
- Provide for the delivery of or the access to product data.
- Cover CM requirements throughout a weapon system's life cycle.
- Cover all product related data including software and Technical Manuals.
- A step towards harmonizing with STEP and ISO community by embracing a two part key for document identification

Shortcomings of 2549

- Data tagging scheme that was complex and incompatible with emerging technologies like XML
- Display format that buried much of the message structure and content information in footnotes that made it difficult to understand.
- A tailoring appendix that seemed to concentrate more on explaining when and under what circumstances certain documents would be ordered rather than how to order the information.

Our Solution

- Get rid of the footnotes and provide a structure and a symbology that is compatible with XML.
  - Created two kinds of groupings of related data
    - Parent/child type group – e.g. drawing notes consist of an identifier and its associated text (XML uses a comma between child names to indicate this)
    - Choice groups – e.g. document identifier consists of a number or a title (XML uses a | between choice names to indicate this)
    - Created a more precise means of expressing the cardinality (or range) of groups and fields
      - 1 (must occur only once) (XML uses a null to indicate this)
      - 0:1 (may occur zero or once) (XML uses a ? to indicate this)
      - 1:N (may occur 1 or more times) (XML uses a + to indicate this)
      - 0:N (may occur zero or more times) (XML uses an * to indicate this)
      - A (a field that one might have in their database whose value can be determined from the information that is sent and thus does not have to be included in the message.)
  - Creating a tool that will allow someone to better visualize and explore the makeup of the Data Information Packets

Example of Date Group without type code

Date Group	Parent/Child Group	1
Year	Field	1
Day in Year	Choice Group	1
Day of Year	Field	0:1
Month-Day Group	Parent/Child Group	0:1
Month	Field	1
Day of Month	Field	1
Week-Day Group	Parent/Child Group	0:1
Week	Field	1
Day of Week	Field	1

Example of what the XML document might look like

```
<Date Group>
        <Year>2000</Year>
        <Day in Year>
                <Day of Year>300</Day of Year>
        </Day in Year>
</Date Group>
<Date Group>
        <Year>2000</Year>
        <Day in Year>
                <Month-Day Group>
                        <Month>October</Month>
                        <Day of Month>27</Day of Month>
                </Month-Day Group>
        </Day in Year>
</Date Group>
```

Our Version - High Level Concept